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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,610

09/09/2003

Allan Chasanoff

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03/22/2005

WEISS & MOY PC

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EXAMINER

WARREN, DAVID S

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,610

Applicant(s)

CHASANOFF ET AL.

Examiner

David S. Warren

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Childs, Jr. et al. (2004/0055447 A1). Regarding claims 1, 10, and 19, Childs discloses the use of reading a non-musical data set (see paragraph [0002]), selecting musical parameters for mapping data to audio output (see “mapping scheme” discussed in paragraph [0011]), analyzing data to select values of musical elements (see paragraphs [0036] and [0047]), and generating a representation of said output for playing said musical elements in sequence (see Abstract). Claims 10 and 19 also include computer systems, processors, memory, and program code, Childs discloses the use of computers (see [0013], [0030], and [0072]). A computer inherently possesses memory, code, and processors. The “signal-bearing media containing program instructions” is deemed functionally equivalent to that part of the Childs’ computer containing the

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program code (i.e., the hardware). Regarding claims 2, 11, and 20, Childs teaches the use of selecting "plausible" and "anticipated" ranges and the use of statistics (i.e., the Dow Industrial Average, Nasdaq, and the S&P 500). The user of the Childs invention would not configure use of an inappropriate range – otherwise, the Childs invention would not sonify data. Regarding claims 3, 12, and 21, Childs discloses selecting audio values in conformity with statistics (paragraph [0047]; lines 9 – 17). Regarding claims 4, 13, and 22, Childs discloses selecting audio in conformity with deviations of data values (see paragraph [0047], last sentence). Regarding claims 5, 14, and 23, Childs discloses the use of music having statistically determined variations, where variations are controlled by statistics - in paragraph [0057], Childs states: "As the securities or indices move closer to their moving averages, the sonification can become continuous [as opposed to shorter duration]. Regarding claims 6, 15, and 25, Childs discloses the use of financial data, e.g., the Dow Average, Nasdaq, and S&P 500 (see paragraph [0040]. Regarding claims 7, 16, and 25, Childs discloses the use of multiple timbres (i.e., instruments) for different data sets (see Childs' claim 27). Regarding claims 8, 17, and 26, Childs discloses the use of selecting audio elements in conformity with differences between multiple data sets – in paragraph [0042], Childs states: "Volume [i.e., an audio element] can be used in this continuous sonification to indicate when the different data streams approach each other or to indicate when a data stream approaches user-defined anticipated ranges or significant events" [emphasis added]. Regarding claims 9, 18, and 27, Childs discloses the use of selecting audio elements in conformity with differences between statistics of data sets – in paragraph [0059], Childs

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states: "Different moving averages are mapped to different sound types or voices, for example, the 50-day Moving Average is represented by a clarinet and the 200-day Moving Average is represented by a string orchestra."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The article "Remapping Sensory Data" to Berger shows sonifying of stock market data (see sound example 2). "Sonification Report: Status of the Field and Research Agenda" to Kramer et al. discloses the use of data sonification using statistics (see page 12, first sentence). Assuming argument, the Examiner takes Official Notice, that the "averages" discussed in the rejection fall within the field of statistics. Furthermore, Childs discloses the use of a "computational model" – one of ordinary skill (capable of applying computational models) would certainly find it obvious to use any of the rudimentary forms of statistical analysis, included Z-scores and standard deviation.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw



MARLON T. FLETCHER
PRIMARY EXAMINER